

Application Number 10/525296
Response to the Office Action dated September 17, 2008

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks.

The specification has been amended editorially as described above. Table 1 at page 24 of the specification has been amended to correct an inadvertent error in the reported values of optical characteristics for the individual information layer of medium No. (0). Note that information layer 3 is the same in media No. (0) and No. (1). The correct values for the layers 3 of media No. (0) and No. (1) now are the same.

Claims 1 and 16 have been amended to include limitations of original claim 9 with editorial revisions. Accordingly, claims 8 and 9 have been canceled without prejudice. Claims 2, 10, and 15 have been amended editorially.

Claims 1-10 and 12-17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaura et al. (U.S. Patent Application Publication No. 2002/0122366) (Kitaura I) in view of Nishiuchi et al. (Japanese Journal of Applied Physics, 37(1998) 2163). Applicants respectfully traverse this rejection.

Kitaura I discloses a recording layer formed by Te-O-Pd (see for example, para. [0084]). However, in the reference, all disclosed ratios of Te : Pd in the recording layers are 90:10, and the same mixture gas of Ar and O₂ at flow ratio 45:55 and gas pressure at 0.2 Pa is used to add oxygen to all recording layers of the reference (see paras. [0084] at page 7, [0091] at pages 7-8, [0099] and [0100] at page 8, [0101] at pages 8-9, and [0102] and [0103] at page 9). Thus, Kitaura I fails to disclose that a concentration of oxygen is lower in the recording layer included in the information layer closer to the laser beam than the concentration in the other information layers as claims 1 and 16 require. By including less oxygen atoms in a recording layer closer to the laser beam, a difference of transmittance of the information layer between in an unrecorded state and in a recorded

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state can be reduced easily, and high transmittance of the information layer formed closer to the laser beam can be obtained easily (see page 6, lines 10-19 of the specification).

Further, by including less oxygen atoms in a recording layer closer to the laser beam, a coefficient of variation of envelope signals, which is caused by a difference of transmittance between unrecorded and recorded states of an information layer formed closer to the laser beam from the information layer for which the coefficient is measured, can be reduced, and an error rate of reproduction signals can be reduced (see medium Nos. (0) and (2) in table 3 at page 30, page 28, lines 20-26, page 29, line 11- page 30, line 18). Accordingly, claims 1 and 16 are distinguished from Kitaura I.

Nishiuchi discloses a Te-O-Pd suboxide phase-change film, whose optimum composition is $\text{Te}_{42}\text{O}_{46}\text{Pd}_{12}$ (see page 2164, second para. under 3.1 Optimization of Te-O-Pd films, lines 14-16) and fails to disclose that the concentration of oxygen is lower in a recording layer included in an information layer closer to the laser beam than the concentration in the other information layers as claim 1 requires. Thus, Nishiuchi does not remedy the deficiencies of Kitaura I.

Accordingly, claims 1 and 16 are distinguished from Kitaura I in view of Nishiuchi, and this rejection should be withdrawn.

Claim 11 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaura et al. (U.S. Patent Application Publication No. 2002/0122366) (Kitaura I) in view of Nishiuchi et al. (Japanese Journal of Applied Physics, 37(1998) 2163) and further in view of Imaino et al. (U.S. Patent No. 5,555,537). Applicants respectfully traverse this rejection.

Claim 1 and accordingly, claim 11 are distinguished from Kitaura I in view of Nishiuchi for at least the same reasons as discussed for claim 1 above.

Imaino discloses candidate materials for recording films such as TeO_x , GeO_x , SbO_x , and InO_2 (see coln. 10, lines 27-30) but fails to disclose that the concentration of oxygen is lower in a recording layer included in an information layer closer to the laser beam as claim 1 requires. Thus, Imaino fails to remedy the deficiencies of Kitaura I and Nishiuchi. Accordingly, claim 1 and accordingly, claim 11 are distinguished from

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Kitaura I in view of Nishiuchi and further in view of Imaino, and this rejection should be withdrawn.

Claims 1-7 and 12-17 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,768,710 (Kitaura et al.) (Kitaura II) in view of Nishiuchi et al. (Japanese Journal of Applied Physics, 37(1998) 2163). Applicants respectfully traverse this rejection.

Like Kitaura I, Kitaura II discloses recording layers all of which contain Te-O-Pd at a ratio of Te : Pd are 90:10, and that for all recording layers, a mixture gas of Ar and O₂ at flow ratio 45:55 and gas pressure at 0.2 Pa is used (see coln. 12, lines 44-49 and 55-57, coln. 13, lines 49-52 and 57-59, coln. 13, line 67 – coln. 14, line 2, coln. 15, lines 1-5, 9-11, 19-22, 24-26, 34-37, 39-41, 49-52, and 54-56, and coln. 16, lines 3-5). A composition of a recording layer of example 1 formed under this condition includes Te:O:Pd = 42:53:5 (see coln. 12, lines 64-67). Kitaura II also does not claim the oxygen concentration that is lower in a recording layer included in an information layer closer to the laser beam as claims 1 and 16 require. Accordingly, claims 1 and 16 are distinguished from the claimed subject matter of Kitaura II.

Nishiuchi does not remedy the deficiencies of Kitaura II for at least the same reasons as discussed for Kitaura I in view of Nishiuchi for claims 1 and 16 above.

Accordingly, claims 1 and 16 are distinguished from Kitaura II in view of Nishiuchi, and this rejection should be withdrawn.

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In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

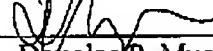


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DPM/my/ad

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